79GHz Band 3D Imaging Radar

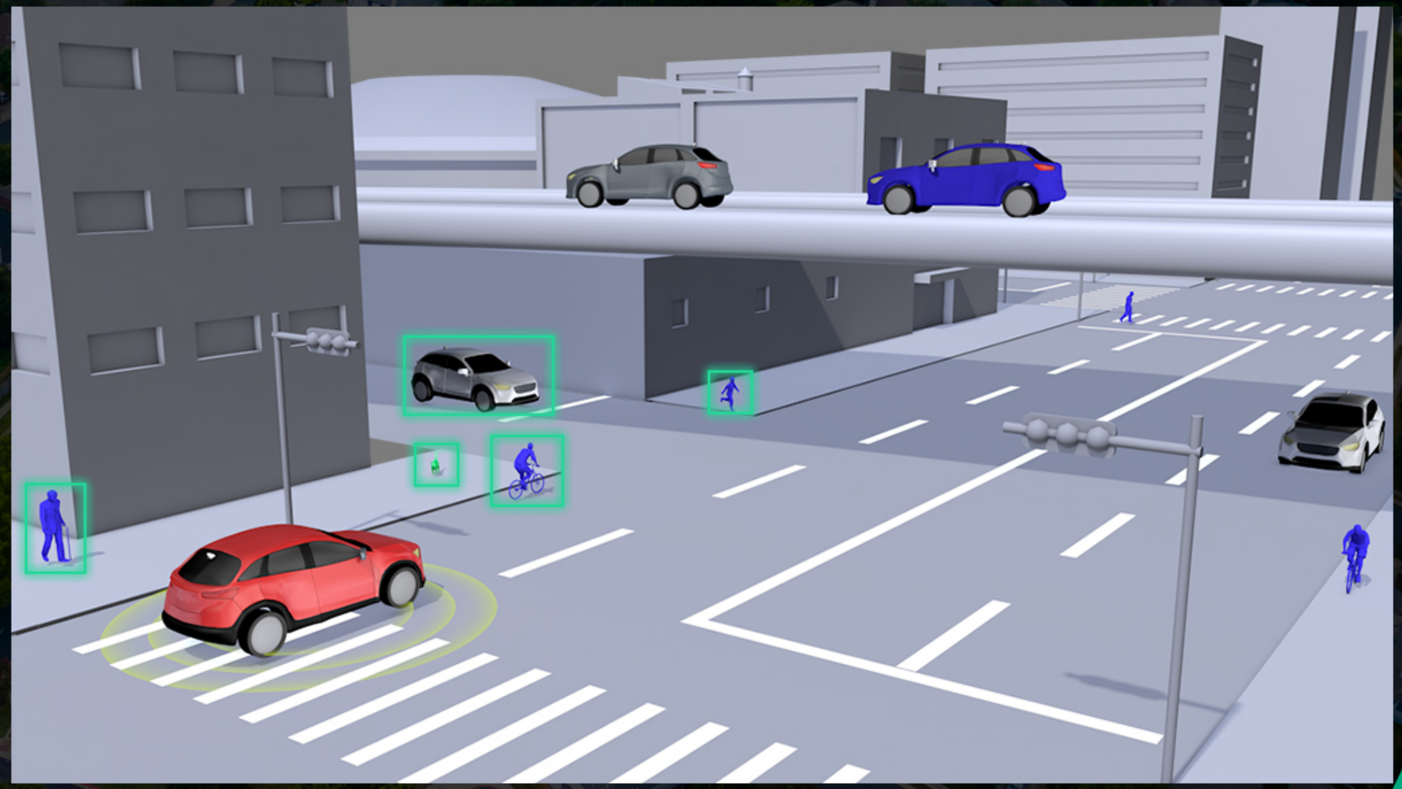
Object detection around vehicle in low visibility environment

Benefits

Nearfield object detection around the vehicle with 3D imaging

Easy installation due to small packaging of the 3D radar module

Can detect objects in low visibility environment such as fog, snowstorm, dust and / or darkness



Panasonic AUTOMOTIVE

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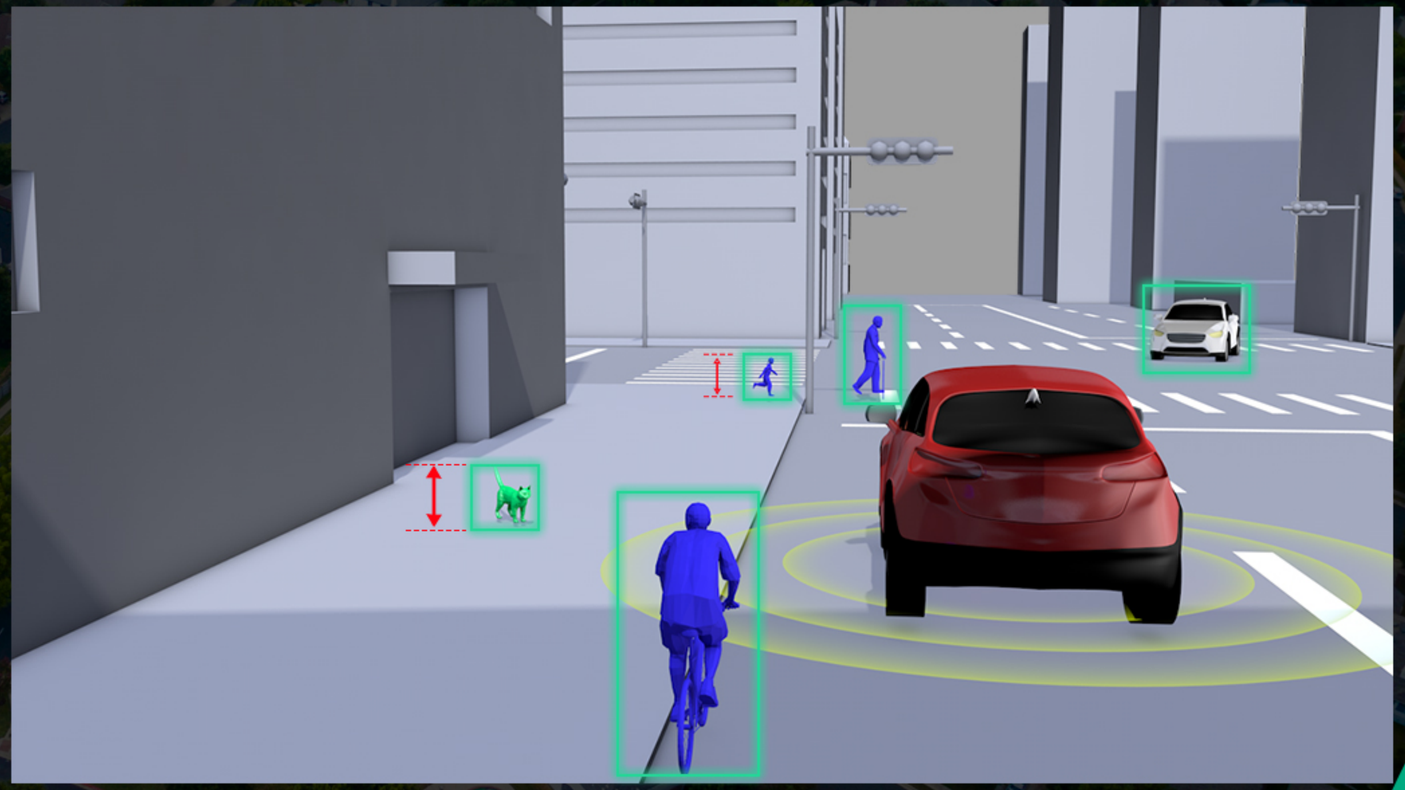

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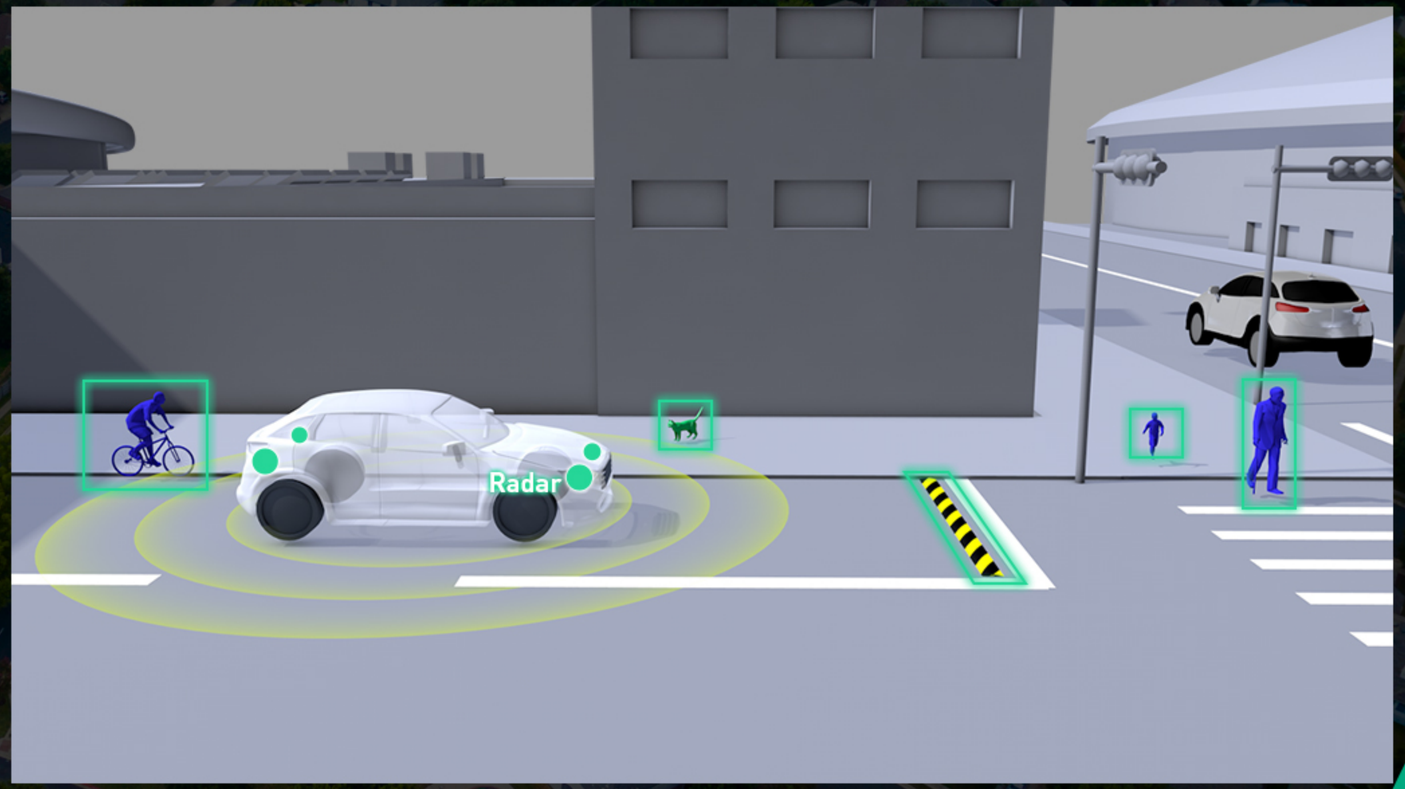

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Technical Advantages

High angular resolution

3D MIMO radar with the least number of antennas and highly accurate object detection algorithm.

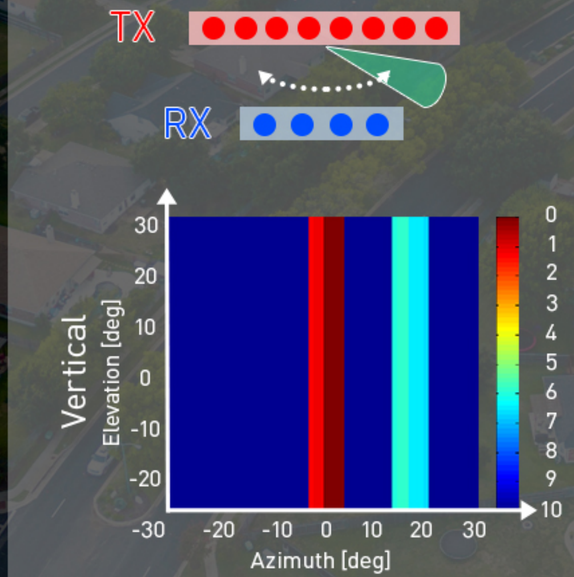
High range resolution

Use of 79GHz wideband characteristics.

Technical advantage of 3D MIMO radar

2D radar

Conventional Antenna Layout
(Horizontal Detection only)



Horizontal

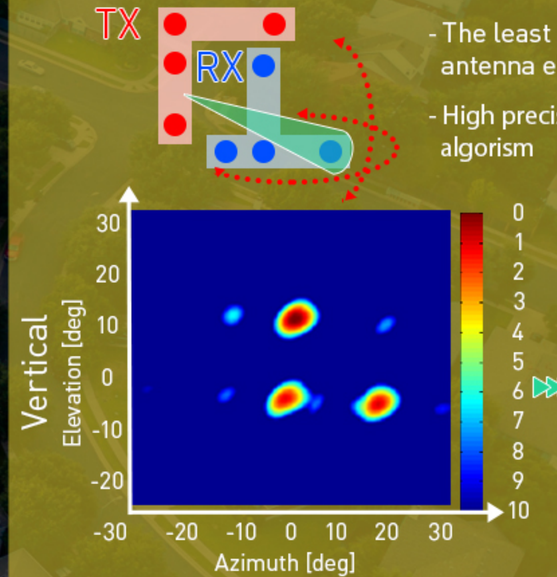
Cannot detect each target height

Targets

Test targets
3-Reflectors

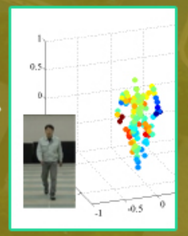
3D MIMO radar

Panasonic's Original Layout
[Horizontal + **Vertical** Detection]



Horizotntal

Can detect each target height



Recognition of pedestrian

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Applications

Pedestrian safety at intersection

Detection and imaging of multiple pedestrians and other objects under low visibility.

Around parking lot with multiple obstacles

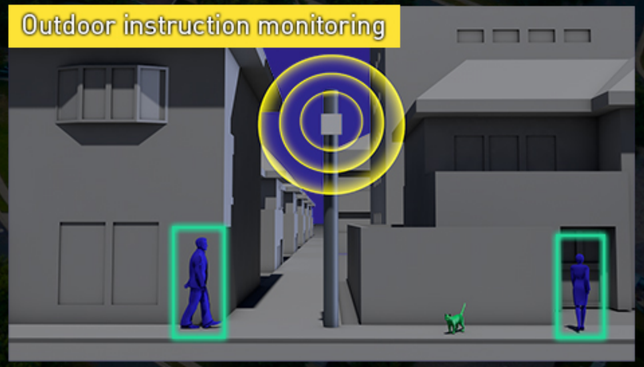
Space detection for parking at complex situation.

Object movement detection for outdoor spaces

Detect pedestrians and animals etc, in dark night.

Automotive Scene

Industrial Scene



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